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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,231	04/22/2005	Naresh Kumar	4137-44	7197
23117 NIXON & VAN	7590 11/07/200 NDERHYE, PC	EXAMINER		
901 NORTH G	LEBE ROAD, 11TH F	GUDIBANDE, SATYANARAYAN R		
ARLINGTON,	VA 22205		ART UNIT	PAPER NUMBER
		1654		
			MAIL DATE	DELIVERY MODE
			11/07/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	A P C M.	A P (f-)				
	Application No.	Applicant(s)				
Office Action Comments	10/525,231	KUMAR, NARESH				
Office Action Summary	Examiner	Art Unit				
	SATYANARAYANA R. GUDIBANDE	1654				
The MAILING DATE of this communication apperiod for Reply	opears on the cover sheet with th	e correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPI WHICHEVER IS LONGER, FROM THE MAILING [  - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period.  - Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICAT .136(a). In no event, however, may a reply be d will apply and will expire SIX (6) MONTHS for the, cause the application to become ABANDO	ION. e timely filed rom the mailing date of this communication. DNED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 04.	August 2008.					
2a) This action is <b>FINAL</b> . 2b) ☐ Th	is action is non-final.					
, <del></del>	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
4) ☐ Claim(s) 142-148,158 and 236-249 is/are per 4a) Of the above claim(s) 143,145,147 and 235) ☐ Claim(s) 148 and 249 is/are allowed.  6) ☐ Claim(s) 142, 144, 146 and 158 is/are rejected.  7) ☐ Claim(s) is/are objected to.  8) ☐ Claim(s) are subject to restriction and/	36-248 is/are withdrawn from co	nsideration.				
Application Papers						
9)☐ The specification is objected to by the Examir						
10)☐ The drawing(s) filed on is/are: a)☐ ac						
Applicant may not request that any objection to the		• •				
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) ☐ Interview Summ Paper No(s)/Mai					
<ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO/SB/08)</li> <li>Paper No(s)/Mail Date</li> </ul>		al Patent Application				

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### **DETAILED ACTION**

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### Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/4/08 has been entered.

#### Election/Restrictions

Applicant's election with traverse of group II invention and election of the following compound,

as the species in the reply filed on 8/24/07 is acknowledged. The traversal arguments were answered in the office action dated 10/17/07.

A search for the elected species indicated that it is free of prior art. The species recited in claims 148 and 249 have also been found to be free of art. The search was extended and art was found on the following compounds (X), (Y) and (Z),

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that are used in the rejections as shown below.

# Allowable Subject Matter

Claims 148 and 249 are allowable over prior art.

Applicant's remarks and amendment to claims in the response filed on 10/7/08 has been acknowledged.

Claims 142-148, 158, 236-249 are pending.

Claims 236-249 have been added as new claims.

Claims 1-141, 149-157, 159-235 have been canceled.

Claims 143, 145, 147, 236-248 have been withdrawn from further consideration as being drawn to non-elected invention. Claims 143 and 146 are withdrawn because, the species elected by the office compound 'X' does not have halogen atom. Claims 236-239 are withdrawn because, the species elected by the office compound 'X' does not have pheny, aralkyl or

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substituted alkyl moieties. Claim 145 is withdrawn because, the species elected by the office compound 'X' was made by a method that does not utilize any of the dehydrating agents recited in instant claim 145. Claims 240-243 are withdrawn because, the species elected by the office compound 'Z' does not have halogen atom or pheny, aralkyl or substituted alkyl moieties.

Claims 244-248 are withdrawn because, the species elected by the office compound 'Y' does not have halogen atom or pheny, aralkyl or substituted alkyl moieties.

Claims 142, 144, 146 and 158 are examined on the merit.

Any objections and/or rejections made in the last office action dated 4/3/08 and not specifically mentioned here are considered withdrawn.

### Withdrawn Rejections

# Claim Rejections - 35 USC § 112, 2<sup>nd</sup> Paragraph

Applicant's arguments, see page 14, filed 8/4/08, with respect to 35 USC 112, 2<sup>nd</sup> paragraph have been fully considered and are persuasive. The rejection of claim 158 has been withdrawn.

# Claim Rejections - 35 USC § 112, 1st Paragraph

Applicant's arguments, see page 13, filed 8/4/08, with respect to 35 USC 112, 1<sup>st</sup> paragraph have been fully considered and are persuasive. The rejection of claims 142-146 and 148 has been withdrawn.

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## Claim Rejections - 35 USC § 102

Applicant's arguments, see page 14 and 15, filed 8/4/08, with respect to the rejection(s) of claim(s) 146, 147 and 158 under 35 USC 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of amendments to claims.

## New grounds of Rejections

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 142, 144 and 158 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiraki, Tetrahedron Letters, 1995, 36, 5551-5554.

In the instant invention, applicant's claim a method of preparing a compound of formula III according to the reaction scheme shown below:

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Shiraki discloses the reaction following scheme:

Shiraki discloses compound 18 (page 5553, Scheme 2) wherein  $R_3$ ,  $R_4$  are unsubstituted alkyl (-CH<sub>3</sub>),  $R_5 = H$ ,  $R_1 =$  substituted alkyl and  $R_2$  is hydrogen that reads on formula II of instant claim 142. Compound 20 is the dehydrated product wherein  $R_3$ ,  $R_4$  are unsubstituted alkyl (-CH<sub>3</sub>),  $R_5 = H$ ,  $R_1 =$  substituted alkyl and  $R_2$  is hydrogen that reads on formula III of instant claim 142 and compound VI of claim 158. The reaction scheme discloses the dehydrating agent 'cat. CSA / MeOH' that reads on instant claim 144. Hence Shiraki anticipates instant invention.

Claims 142 and 144 are rejected under 35 U.S.C. 102(b) as being anticipated by Gill, 1993, J. Chem. Soc., Perkin Transaction, 21, 2567-2579.

Gill discloses the reaction following scheme (page 2570, column 1, paragraph 1):

Gill discloses compound **28a** wherein R<sub>3</sub>, R<sub>4</sub> are 'H' and unsubstituted alkyl (-propyl), R<sub>5</sub>=-CH<sub>3</sub>, R<sub>1</sub>=-CH<sub>3</sub> and R<sub>2</sub> is hydrogen that reads on formula II of instant claim 142. Compound 30 is the dehydrated product wherein R<sub>3</sub>, R<sub>4</sub> are 'H' and unsubstituted alkyl (-propyl), R<sub>5</sub>=-CH<sub>3</sub>, R<sub>1</sub>=-CH<sub>3</sub> and R<sub>2</sub> is hydrogen that that reads on formula III of instant claim 142. The reaction scheme discloses the dehydrating agent 'pTSA and benzene' that reads on instant claim 144. Hence Shiraki anticipates instant invention.

Claims 146 is rejected under 35 U.S.C. 102(b) as being anticipated by Fiorenza, 1984, J. Org. Chem., 49, 551-553.

In the instant invention, applicants claim a compound of formula III as shown below:

Fiorenza discloses the compound 5 and 6 (page 551, column 1, Scheme 1):

Variable	Instant Invention	Fiorenza
R <sup>1</sup> and R <sup>2</sup>	Н	Н
R <sup>3</sup> and R <sup>4</sup>	H, substituted or unsubstituted alkyl	Compound 5: n-propyl, H
		Compound 6: -CH <sub>3</sub>
R <sup>5</sup>	H, substituted or unsubstituted alkyl	-CH <sub>3</sub>

Hence, Fiorenza anticipates the instant claim 146.

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Claims 146 is rejected under 35 U.S.C. 102(b) as being anticipated by Aso, 2000, Chem. Pharm. Bull., 48, 1384-1386.

Aso discloses the compound 2b as shown below (page 1385, Chart 5):

Variable	Instant Invention	Aso
R <sup>1</sup> and R <sup>2</sup>	Н	Н
R <sup>3</sup> and R <sup>4</sup>	H, substituted or unsubstituted alkyl	Н
$\mathbb{R}^5$	H, substituted or unsubstituted alkyl	Bn = butyl

Hence, Aso anticipates the instant claim 146.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satyanarayana R. Gudibande whose telephone number is 571-272-8146. The examiner can normally be reached on M-F 8-4.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on 571-272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Satyanarayana R Gudibande/ Examiner, Art Unit 1654

/Andrew D Kosar/ Primary Examiner, Art Unit 1654